

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 May 2004 (21.05.2004)

PCT

(10) International Publication Number
WO 2004/042967 A2

(51) International Patent Classification⁷: **H04B 10/155**

[GB/GB]; 37 Cyril Street, Abington, Northampton NN1 5EJ (GB).

(21) International Application Number:
PCT/GB2003/004747

(74) Agents: **CLAYTON-HATHWAY**, Anthony, Nicholas et al.; Fry Heath & Spence LLP, The Gables, Massetts Road, Horley, Surrey RH6 7DQ (GB).

(22) International Filing Date:
3 November 2003 (03.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0225600.6 2 November 2002 (02.11.2002) GB

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*):
BOOKHAM TECHNOLOGY PLC [GB/GB]; 90 Milton Park, Abingdon, Oxon OX14 4RY (GB).

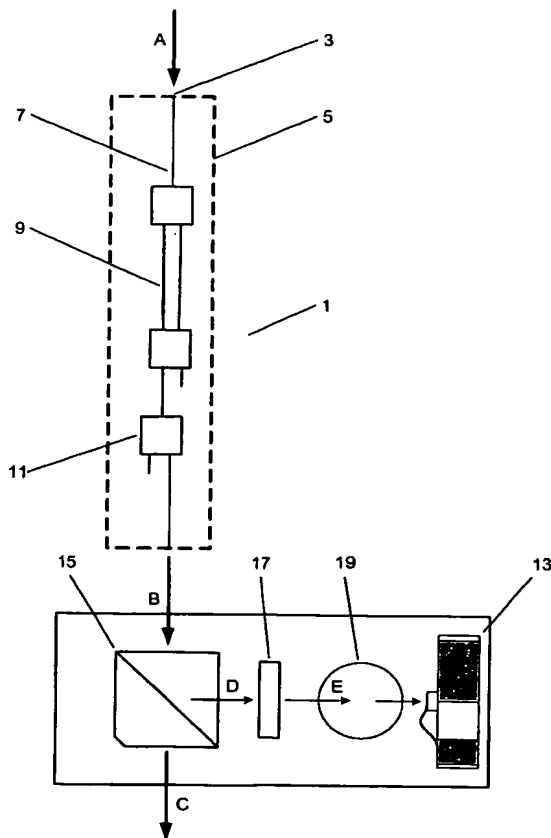
(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **GIBSON, Matthew**

[Continued on next page]

(54) Title: OPTICAL COMMUNICATIONS APPARATUS



(57) Abstract: An Optical communications apparatus, comprising: (a) an optical integrated device comprising an input, one or more integrated optical component(s) and an output, arranged such that light received by the input is propagated by the optical component(s) and exits the device as an output light beam; (b) a light beam diverter arranged to divert a sample portion only of the power of the output light beam; (c) a light detector arranged to detect the sample portion of the output light beam; and (d) a polariser located between the light beam diverter and the light detector and/or between the output of the optical integrated device and the light beam diverter, the polariser being arranged such that if light of a predetermined polarisation is received by the optical integrated device, the polariser propagates light of that polarisation only, thereby substantially to prevent light other than of the predetermined polarisation being detected by the light detector.



SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *without international search report and to be republished upon receipt of that report*